

ABSTRACT OF THE DISCLOSURE

A sound processing system including at least one microphone, an audio processor, and at least one output device. The audio processor includes an analog beamformer, a microphone equalizer, and an apparent incidence processor. Two different embodiments of the apparent incidence processor are disclosed, that is, a wave generation method and a forward filtering method. Both embodiments use the same principles to estimate the properties of the individual waves of the sound field. With the present invention, it is possible to implement arbitrary directivity responses using a small number of microphones only, that is, two or three microphones. The present invention offers improved noise reduction also for environments with many independent noise sources. Furthermore, the present invention works for signals and noises with arbitrary statistics.